

Monday, February 07, 2011 11:52:46 AM

Page 1

**Accept**

**Setup Start**

**Stop**

**Cust Item ID:**

**Customer:**

**Reference:**

**Approvals:**

**Process Plan:** MF

Date: 11-02-07

**Tooling:****Date:**

Run Start

**QC:**

Date:

**SPC (Y/N):**

Date:

**Stop**

**Insp.  
Stamp**

Revision Nbr

D3471

Rev. A

100

0.00

**Abstract**

## Small Fab

### Small Fab

## Memo

0.00

## Small Fab

Assemble as per dwg D3471

110

QC5- Inspect part completeness to step on W/O

0.00

**Abstract**

QC

## Memo

0.00

## Quality Control

120

Identify as per dwg & Stock Location: 133

0.00

\_\_\_\_\_

### Packaging

## Memo

0.00

### Packaging

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 66186**

Monday, February 07, 2011 11:52:46 AM



Page 2

Item ID: D3471-043

Accept



Setup Start



Revision ID:

Stop



Item Name: Support &amp; Clamp Assembly

Start Date: 2/8/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 2/22/2011 Req'd Qty: 6.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/02/14 *[Signature]*  
*ME*

11-02-11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Monday, February 07, 2011 11:52:43 AM

Page 1

Work Order ID: 66186

Parent Item: D3471-043

Parent Item Name: Support & Clamp Assembly




Start Date: 2/8/2011




Required Date: 2/22/2011

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP rev A 06.03.02 New issue EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3471-3  Support		Manufactured	No			100	Each	6.0000	1	6			
<div> <div>Location</div> <div>ST061</div> <div>43075 ✓</div> </div> <div> <div>Loc Qty</div> <div>6</div> <div>6</div> </div> <div> <div>Loc Code</div> <div></div> <div></div> </div>													
MS20427M4-4  RIVET		Purchased	No			100	Each	137.0000	3	18			
<div> <div>Location</div> <div>ST318</div> <div>105408 ✓</div> </div> <div> <div>Loc Qty</div> <div>137</div> <div>137</div> </div> <div> <div>Loc Code</div> <div></div> <div></div> </div>													
MS35842-16  CLAMP		Purchased	No			100	Each	20.0000	1	6			
<div> <div>Location</div> <div>ST452</div> <div>112082 ✓</div> </div> <div> <div>Loc Qty</div> <div>20</div> <div>20</div> </div> <div> <div>Loc Code</div> <div></div> <div></div> </div>													

 m-l 11/02/09  
~~6x~~  
 m-l 11/02/09  
~~18x~~  
 m-l 11/02/09  
~~6x~~

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

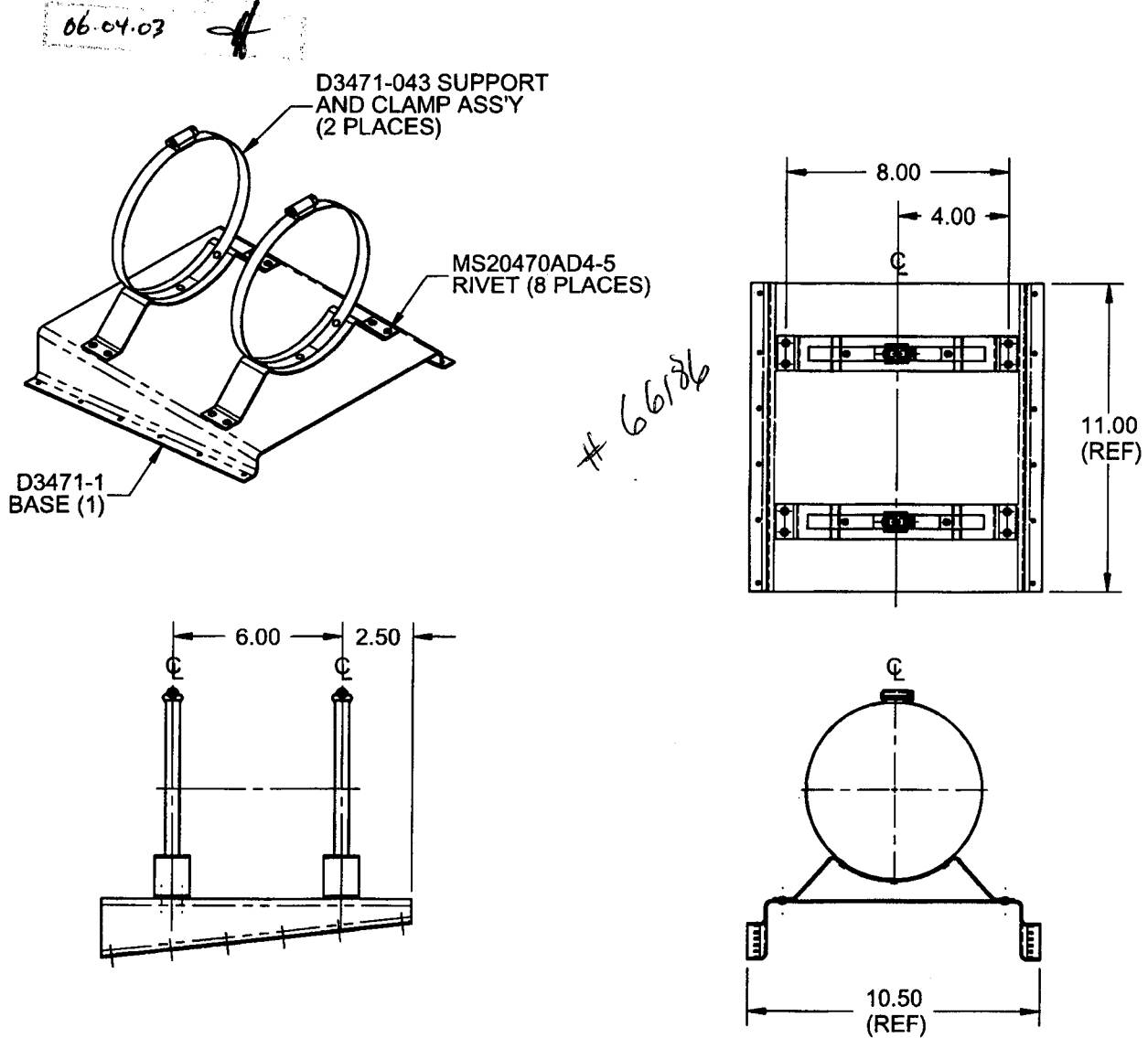
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



DESIGN <i>B</i>	DRAWN BY <i>B</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. <b>D3471</b>	REV. A SHEET 1 OF 5
DATE <b>05.12.21</b>		TITLE <b>BLOWER MOTOR SUPPORT</b>	SCALE 1:6
A	05.12.21	NEW ISSUE	



### D3471-041 BLOWER MOTOR SUPPORT

#### NOTES:

- 1) IDENTIFY WITH DART P/N D3471-041 USING FINE POINT PERMANENT INK MARKER
- 2) TOLERANCES ARE PER DART QSI 018, UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

QTY -041	P/N	DESCRIPTION
X	D3471-041	BLOWER MOTOR SUPPORT
2	D3471-043	SUPPORT AND CLAMP ASSEMBLY
1	D3471-1	BASE
8	MS20470AD4-5	RIVET

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**DART**

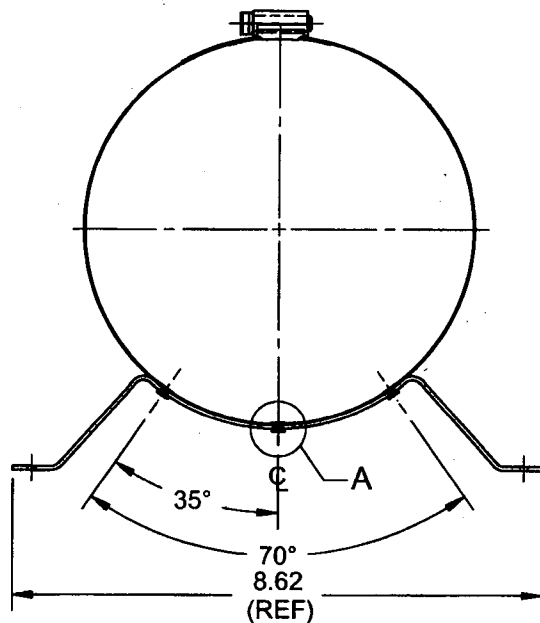
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CHECKED <i>H</i>	APPROVED <i>H</i>	DRAWING NO. <b>D3471</b>	REV. A SHEET 2 OF 5
DATE <b>05.12.21</b>		TITLE <b>BLOWER MOTOR SUPPORT</b>	SCALE 1:3

06.04.03 *H*

LOCATE AND TRANSFER DRILL  
#30 ( $\phi 0.129$ ) THRU HOLE FROM  
D3471-3 TO MS35842-16 CLAMP  
AND C'SINK  $\phi 0.230 \times 100^\circ$   
(3 PLACES)



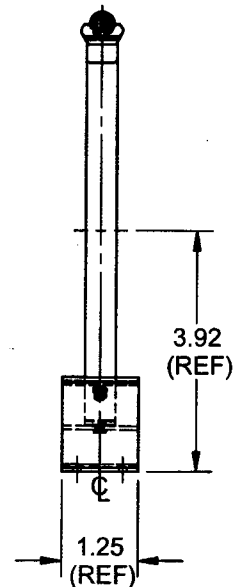
**DETAIL A: COUNTERSINK HOLES**  
(RIVET NOT SHOWN FOR CLARITY)  
SCALE 1:1



MS35842-16  
CLAMP

MS20427M4-4 RIVET  
(3 PLACES)

D3471-3  
SUPPORT



### **D3471-043 SUPPORT & CLAMP ASS'Y**

#### **NOTES:**

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010

QTY -043	P/N	DESCRIPTION
X	D3471-043	SUPPORT AND CLAMP ASSEMBLY
1	D3471-3	SUPPORT
3	MS20427M-4	RIVET
1	MS35842-16	CLAMP

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

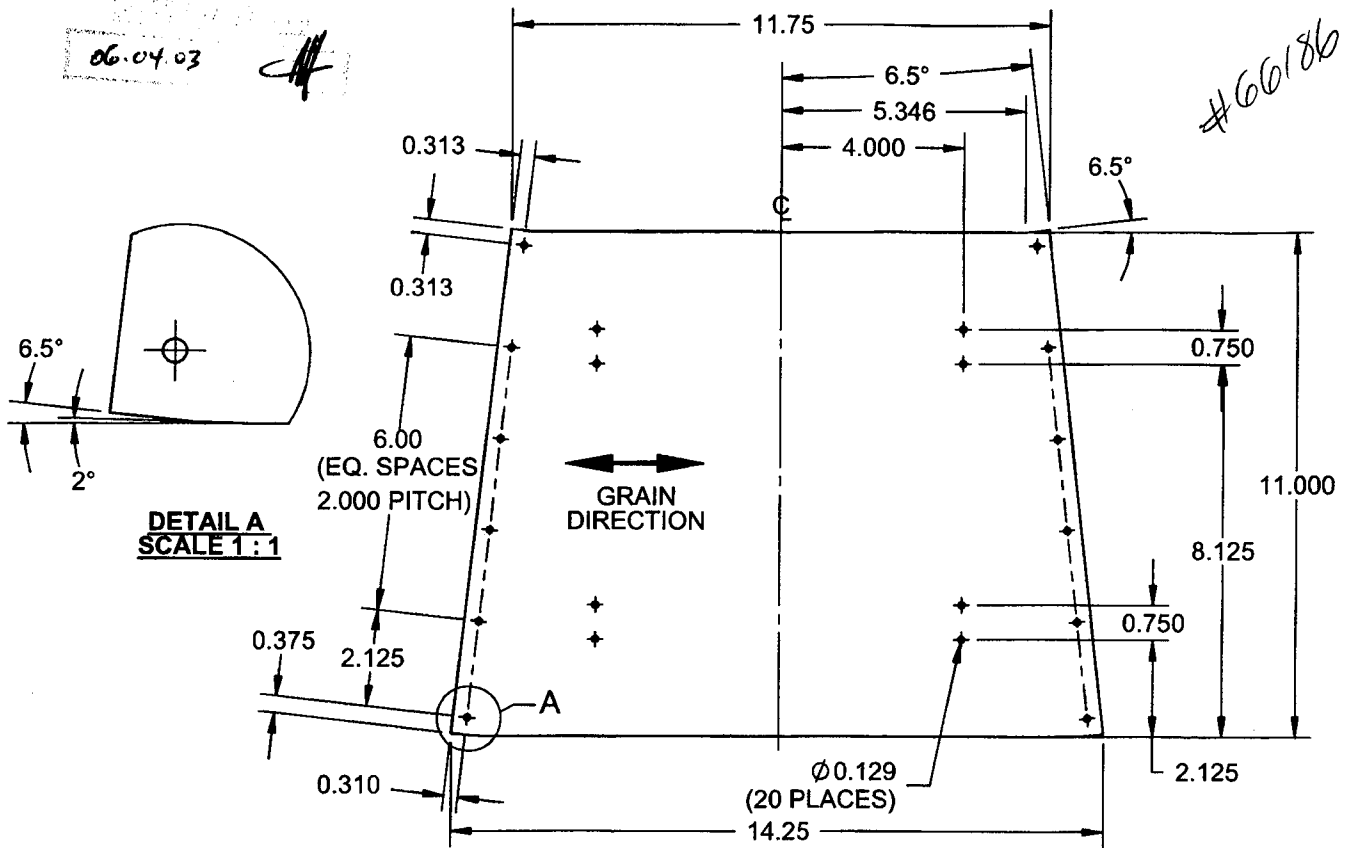
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

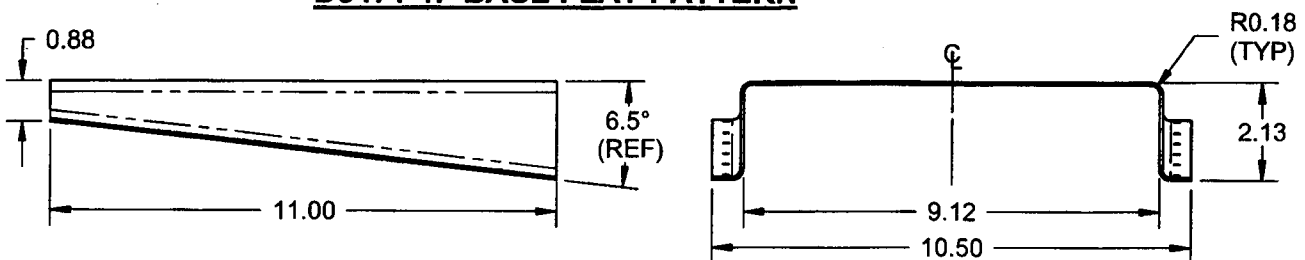
**NOTE:** Date & initial all entries

**DART**

DESIGN <i>B</i>	DRAWN BY <i>B</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>H</i>	APPROVED <i>H</i>	DRAWING NO. <b>D3471</b>	REV. A SHEET 3 OF 5
DATE <b>05.12.21</b>		TITLE <b>BLOWER MOTOR SUPPORT</b>	SCALE 1:4



### D3471-1F BASE FLAT PATTERN



### D3471-1 BASE BENDING DETAIL

#### NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET (0.063" THICK)  
PER QQ-A-250/4 OR AMS 4037  
(REF. DART SPEC. M2024T3S.063)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) PART IS SYMMETRICAL ABOUT CENTER LINE
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

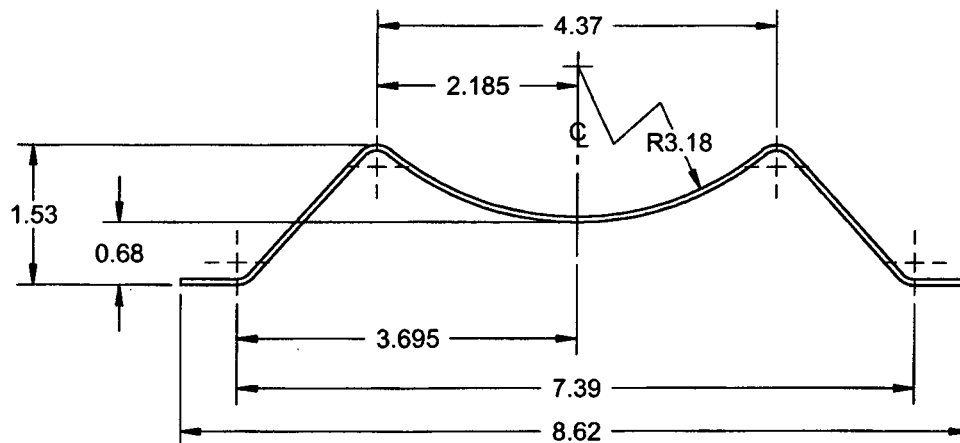
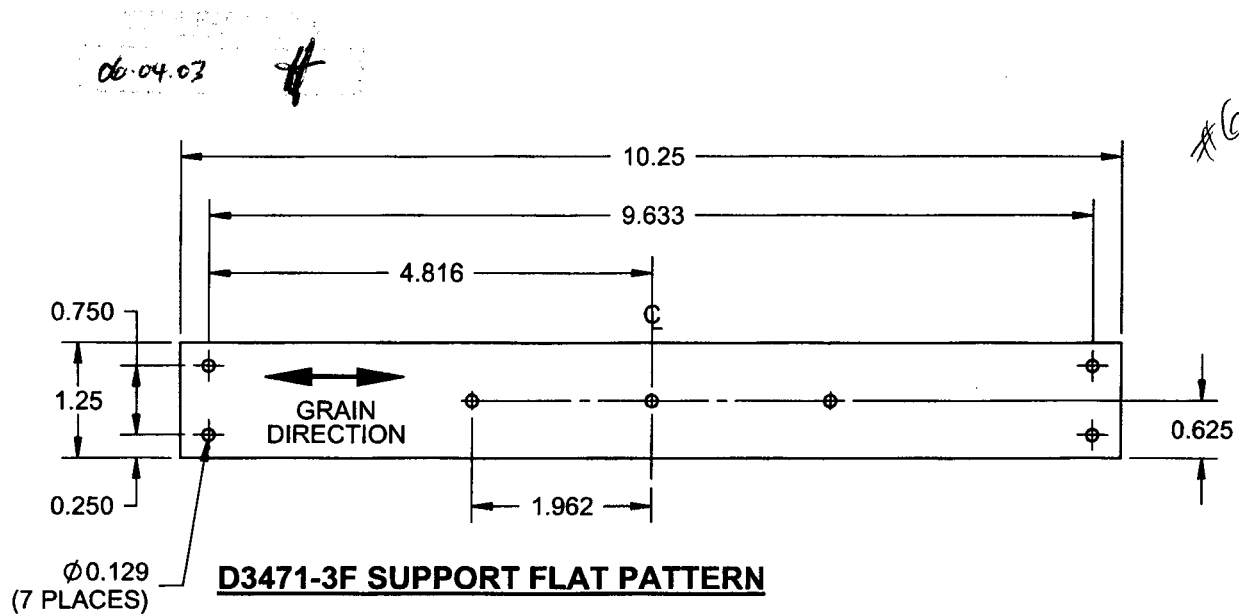
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



DESIGN <i>B</i>	DRAWN BY <i>B</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D3471	REV. A SHEET 4 OF 5
DATE 05.12.21		TITLE BLOWER MOTOR SUPPORT	SCALE 1:2



### **D3471-3 SUPPORT BENDING DETAIL**

#### **NOTES:**

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET (0.063 THICK)  
PER AMS-QQ-A-250/4 OR AMS 4037  
(REF. DART SPEC. M2024T3S.063)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 2) PART IS SYMETRICAL ABOUT CENTER LINE
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

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W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

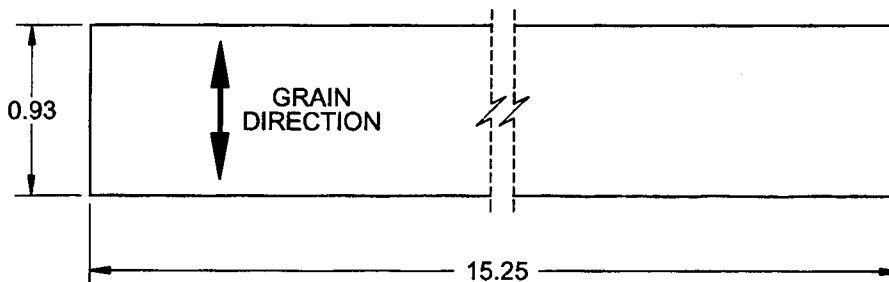
**NOTE:** Date & initial all entries



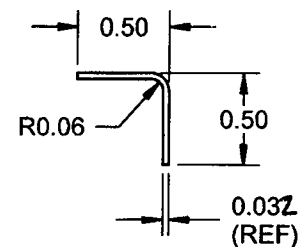
DESIGN <i>B</i>	DRAWN BY <i>B</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>A</i>	APPROVED <i>A</i>	DRAWING NO. D3471	REV. A SHEET 5 OF 5
DATE 05.12.21		TITLE BLOWER MOTOR SUPPORT	SCALE 1:1

06.04.03 *A*

#66186



**D3471-5F STIFFENER FLAT PATTERN**



**D3471-5 STIFFENER  
BENDING DETAIL**

**D3471-5 STIFFENER**

**NOTES:**

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET (0.032" THICK)  
PER QQ-A-250/4 OR AMS 4037  
(REF. DART SPEC. M2024T3S.032)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries